



UN 7 STATES DEPARTMENT OF COMMERCE Pat end Trådemark Offica Address: COMMISSIONER OF PATENTS AND TRADEMARKS Weshington, D.C. 20231

			•			
3	==:	AL NUMBER	FLINE DATE	FIRST NAMED INVENTOR	, ,	ATTORNEY DOCKET NO
0	127	683 . 549	04/10/91	NELSON		LT-5 REISSUE
					PECKMAN.	ı
ţ,	105	K D. ROW	LAND	RECEIVED	ART UNIT	PAPER NUMBER
		H & NEAV		001 0 F 1001		
		i THIRD A' I YURK, H	VENDE Y 10022-625		2102	ч
				FISH & NEAVE - PATENT DEPT.	DATE MAILED	10/23/91
T IN A C AMM	.e.en: 8039-1	en le sa provinció Solato de maior de Mil	A AKET TA IN DETERMINE OF VINCENS SERVICES	" NOTED BY		10/25/91
					•	
ותד 🎝	app	olication has been	Denimana n	Responsive to communication filed on _		This action is made final.
anort	ened	statutory period	for response to this #	otion is set to expire 3(three) mo	onth(a), da	eys from the date of this letter.
				ill cause the application to become aband		
ert I	1	THE FOLLOWING	3 ATTACHMENT(S) A	RE PART OF THIS ACTION		
1.	KÓ 1	Natice of Referen	nces Cited by Examine	• • • • • • • • • • • • • • • • • • • •	re Patent Drawing, PT	
3.			ed by Applicant, PTO- low to Effect Drawing (of Informal Patent App	Montion, Form PTO-152.
2.	ا	migrinianon on H	OW TO CHOCK DIGWING	, mangan, P10-1414.		
Part II		SUMMARY OF				
ŧ.	故	Claime 1-8	<u>ч</u>			_ are pending in the application.
		Of the abo	ove, claims		eri	withdrawn from consideration.
1	П	Claims				have been cancelled.
_			S ADD FINE	Town Server . *		
	,.					
•	故	Ctetrns2_Y	5-80 0110 82	-84		are rejected.
6.		Claims			 -	are objected to.
6.		Claims			_ are subject to restric	ction or election requirement.
7.		This application	has been filed with in	ormal drawings under 37 C.F.A. 1.85 which	h are acceptable for ex	camination purposes.
	_	••		-	• • • • • • • • • • • • • • • • • • • •	t .
.	ш	Former drawing	a are required in respo	nsa to this Office action.		•
9.				have been received onble (see explanation or Notice re Patont Dr		C.F.R. 1.84 these drawings
	_					_
10.				sheet(s) of drawings, filed on	has (have) bed	n 🔲 approved by the
	_		•	_		
	_			d on, has been 🚨		_
12.		_		for priority under U.S.C. 119. The certifie	•	eceived not been received
		Li been filed i	n perent application, s	erisi no; @d	ed on	
12				n condition for allowance except for forma x parte Cuayle, 1935 C.D. 11; 453 O.G. 21		as to the merits is closed in
14.		Other				•,
					FUE *	2T-5-Pu
					DOG SAB	1-2372
					NEVE-24	M. Coulland

EXAMINER'S ACTION

PTQL-326 (Rev. 9-89)

Serial No. 683,549

Art Unit 212

_

- 1. Two of the references cited on PTO-1449 by the applicant have not been considered because dates for the references were not provided.
- 2. Claims 56-80 and 82-84 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 56 and 70-80, line 13, the phrase "adapted to supply" is rejected as being functional and lacks structural support. The examiner suggests -- for applying --.

In claim 82, lines 34 and 35, the phrase "when the current sense signal compares in a predetermined manner to the error signal" is unclear.

In claim 83, line 2, the phrase "equals or exceeds" is vague and indefinite because the alternative is used. The examiner suggests -- is at least equal to --.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Saleh patent is cited as being of interest.

- 4. Claims 1-55 and 81 are allowable over the prior art of record.
- 5. Claims 56, 70-80 and 82 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112.
- 6. Claims 57-69, 83 and 84 would be allowable if rewritten to

Serial No. 683,549

Art Unit 212

-3-

overcome the rejection under 35 U.S.C. § 112 and to include all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication should be directed

to Kristine Peckman at telephone number (703) 308-0640.

STEVENT STEPHAN SUPERVISORY PATENT EXAMINER ART UNIT 212

Peckman/ss September 25, 1991 PTO FORM 848 (BEV. 5-80)

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

ATTACHMENT TO PAPER NUMBER
Ц
APPLICATION NUMBER 683549

TO:703 308 7333

NOTICE OF DRAFTSMAN'S PATENT DRAWING REVIEW

THE PTO DRAFTSMEN REVIEW ALL ORIGINALLY FILED DRAWINGS REGARDLESS OF WHETHER THEY WERE DESIGNATED AS INFORMAL OR FORMAL.

The drawings file	d	40191		
A. \square , are app	roved.			
7 correct	ected to und ed drawings back of this	at the approp	.84 for the reason priate time. Corr	on(s) checked below. The examiner will require submission of new, ected drawings must be submitted according to the instructions listed
1. Paperan	d ink. 37 Ci	R 1.84(a)		4. Hatching and Shading, 37 CFR 1.84(d)
☐ She	et(s)		Poor.	Shade Lines are Required.
2 Size of S	heet and Ma	argins. 37 Cl	R 1.84(b)	Fig(s)
		er Sizes and Paper Size		Criss-Cross Hatching Not Allowed.
·	8 1/2 by	8 1/2 by	DIN size A4	Fig(s)
Margin Top	14 inches	13 inches	21 by 29 7 cm. 2 5 cm.	Double Line Hatching Not Allowed. Fig(s)
Left	1/4 inch	1/4 inch	2.5 cm.	Parts in Section Must be Hatched.
Right	1/4 inch	1/4 inch	1.5 cm.	Fig(s)
Bottom	1/4 inch	1/4 inch	1.0 cm.	5. Reference Characters. 37 CFR 1.84(f)
	All Sheets Sheet(s) _	e Paper Requirements be San	ne Size.	Reference Characters Poor or Incorrectly Sized. Fig(s) Reference Characters Placed Incorrectly.
	,	irgins rioqui		Fig(s)
	□ ТОР		NGHT	6. Views. 37 CFR 1.84(i) & (j)
	LEFT		воттом	Figures Must be Numbered Properly.
3. Charact	er of Lines.	37 CFR 1.84	(c)	
	nes Pale or I	Rough and Bl	urred.	Figures Must Not be Connected. Fig(s)
		ading Not Al		7. Photographs Not Approved. 8. Dother. Remove "U.S PATEUT",
	ne inquire (703) 557		ing this reviev	v should be directed to the Chief Draftsman at telephone Sheet Nº & paten + Nº . fg. I - 8
	A D Reviewing	Draftsman		4.130 91 bate

10 SETAMA I E, NULLI 10F AND BUT 10M EUGES, SNAF-AFAM I AND QISCANU CARBON

		PTO 3-71	8)			PAT	EN.	T ANI	MENT OF D TRADEM	COMMERC ARK OFFI	E CE	SERIA	535	49	G	ZIZ		ATTA P NL	CHMEI TO APER JMBER	NT L	
		N	TC	CE	OF I	REF	ERI	ENCI	ES CITED			ł	CANTIS				,				
			_							U.S	, PATI		CUME								
•			c	000	JMEI	N T N	ο.		DATE				NAME			CLAS:		UB- LASS		NG DAT	
	A	Ŀį	ۋ	2	ما	2	ч	5	4/20/	52	<u> 5al</u>	en				36 3	Z	X		<u>.</u>	
	æ				L		L									<u> </u>	_				
	С																1				
	D		L		L		L	_									\bot		1		
	Ε	1	Ļ			_	ļ	<u> </u>								<u> </u>	-		\bot		
	F	$oldsymbol{\downarrow}$	L	1	\perp	1	$oldsymbol{ol{ol{ol}}}}}}}}}}}}}}}}$			_						<u> </u>	+		\bot		
	G	1	\downarrow	\downarrow		_	↓_	_					<u></u>						_		
	Н	4	1	1	\downarrow	1	\perp	1_	<u> </u>								-		-		
_	Ľ	1	1	+	+	1	-	╀								-	+				
_	1	\perp	1	\downarrow	\downarrow	\downarrow	1	╁									-		<u> </u>		
	K	4	_		1					1_											
	_	-1								FORE	EIGN F	PATEN	T DOC	UMEN	rs -			1		PERTI	NÉN
•	╀	-	7	оо: Т	T I	ENT	NO.	1	DAT	E	CO	UNTRY			NAME		CLASS	CL.	JB- ASS	SHTS.	
_	<u> </u> '	-	- -	4	-	+	\downarrow	-	-											ļ	_
	╁	4	╀	+	+	╀	-	+										_		-	╀
	╁	N	+	+	+-	+	╀	+		-										 	\dotplus
_	+		╀	\dashv	+	+	╀	-	 				-					-			+
\vdash	╁	P Q	+	+	+	+	+	-										+-	-	-	+
-		<u>"</u>]				<u></u>	<u></u>	<u> </u>	FEEDC	OES (I) AAC 17:		D				
H	T	1				<u> </u>		- N M	EFEREN	ICES (IV		ig Au1	nor, i	itie, C	, ate, 1°6		rages,	CIC.)			
	ŀ	₽┞																	-		
-	+	+				·															
		s						_								Y Y L	452	-	-240		
-	†								<u></u>						-			_			
		┰┝	•	-														_		-	
-	1	1														•					
		바					_					_		_				- /			
E	XX	MIN	ER							DATE											

FORM PTO		<u>~</u>	•						_						
	-1448	•	J.S. I		ARTI	MEK MEK	T OI	COMMER MARK OFF	Œ	ATTY. DODET NO. LT-5 reis	sue	90	7/683,	549	
	STAT								•	Carl T. N	elso	1			
	(Line III		نجو <u>ا</u> ــــــــــــــــــــــــــــــــــــ		i =		-71			FLAG DATE 4/10/91		212	a.	a.	
						1	U.	S. PAT	ENT	DOCUMENTS					
MITAL		000	ue	IT M		31		DATE	:	ME	A O	U855 *	SUBCLASS	FATTO	
P	4	<u> </u>	4		घ					onnell_		63	191		
P	4	2		9	8	_	_		_	egnitz		93	21		
(P.	4	4	5 2		1 6	4	7	2/1981 1/1984		ler et al.		13	21		
ρ	- -	6		1		2	급	2/198		ter		63 63	21	-	
P	4	1	-		8	- d				styn et al.		63	ZIX		
P	一	H	H	Ĩ	Ť	┪	Ť	3, 130	1			**	1		^
	╈		H			1	┪								
	十	Γ	П												
	$oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$												1	<u></u>	
						F	OF	REIGN	PATI	ENT DOCUMEN	TS				
		D.	XX	Βſ	N,M	EEA		DATE		COUNTRY		crez	3000.65	TRUE	
	-	T	Т	Τ	T		_		+					155	-
	+	╁	╁	╁	╁	\vdash	\vdash	 	+				+	+	-
	\dashv	┿	╁	╁	╁	╁	\vdash	-	╁╴		_		-	+-	
	+	╁	+	╁	╁	十	╁	┼──	+-					+ -	\vdash
				t	t	٢	۲	+						1	
		0	TH	į. ER		00	C C	MENTS	(Inc	luding Author, T	Nie. Di	rte. P	ertinent	Pages	E
		Ť													
		1								DC To DC Micro	/ wer	cers			
Κb	-	4								C 1846 Current circuit, 12/83.		WM			
		1								the Linear Tech		- 			
EXAMIN		_							-	DATE CONS	SIDERE	0			
	rist		_	$\overline{}$							3-91				

	•		\	f i	Ì	ı						70 C			<u> </u>		
FORM	PTO-14	-(-(Ū	S D	21	ATD.	2 (1	Œ	COMMERC	€	ATTY. DOCKET J.		_	W. 10.			
			1	ATE	M /	NO	TRA	00	WAK CETAC	٤ _	LT-5reissu	e	07	/683,5	149		
	S	FOR TATE		NT 8	DG!		GUPI CAX	E T			AFUCANI CarlT. Nel	son _					
	(U	3	7		n I	i 🛰	-	Ŋ	ı	•	710091		GF	212			
							(IJ.\$	S. PATE	NT D	OCUMENTS						
EUMBER MTML		1	200	MEK	THU		*		DATE		- WE	aus	CUSS 3.0		ACLESS FAMOUNTE		
		I	I	I	I		Ţ	1				-	_		<u> </u>		
		4	4	4	+	+	+	+				+	\dashv				
		+	+	+	\dagger	+	+	+									
				1	1	コ	工	1								· <u> </u>	
		4	4	4	4	4	+	4				+-					
		H	4	+	+	┪	+	\dashv									
								□									
		\Box					4	4									
		L		. 1		٢	<u> </u>		-			! -		J	L		
							-				TELT DOCUMENTS						
	T	1	m	ONE	3(T)	14	25 1		DATE	}	COUNTRY	a	8	3180762	TRMS		
					- · · ·	_						_ _		<u> </u>	185	10	
	1					_				ļ				-	┼-		
	 		L			_		L		 				<u> </u>	-	-	
		1_	_	L	L	L		L						-	┼	-	
		$oldsymbol{\perp}$	L			L	L			_				-	-	-	
			L							1			_			<u> </u>	
			O	THE	₽	1	DO	CU	MENTS	(inclu	Sing Author, Titl	e, Date	, P	ertinent	Peges	, Etc.)	
		T	Τ	Da	ta	1	She	et	, "Lam	bda S	witching Regu	lator	s,	LSH6325	P		
KP		1	1								nverter," Lam , pp. 21-24	noda S	em	conduct	LOIS		
		1	T	Da	ta	S	he	et,	"Lamb	da Sw	itching Regul						
KP			1								nverter," Lar , pp. 25-28	iiida S			COLS		
	1	1	T								ritching Regu						
KP			1	5 Da	An ita	abc	DC xok	- 'T\	o~DC Mi Vol. I,	.crocc	onverter," Lar 3, pp. 29-32	mbda S	em:	100nduc	tors		
ĐV	MINER	 	_1_								DATE CONSID	ERED					
	Kris	tic	Vê	Fi	2C	Kr	nai	Δ			9-23-0	31					
														4		1100	

		(()							(2)	Hi	96L_3	o(6		
FORM F	710-1	419	U	IS C	BI	ITRI ON		OF DEM	COMMERCE WRK OFFICE		m. 1000ET NO. LT-5 reis:	sue	0	7/683,	549		
	· •	FOR TATE	MAT ME	NON NT 8	015 Y A		GURE			1	Carl T. N	elsc	on				
	(U							7)	,		4/10/91		212	a.e			
							_	J.S	. PATEN	T DO	CUMENTS	. 1	1				
NITAL			000	UMB T	ŢK		R	1	DATE		WHE.		aves	SUBCLASS	PLANE D		
		\dashv	+	\pm	+	\pm	1	\pm				士					
			4	\dashv	4	\exists	+	\mp				+					
						\exists	1	#								_	
	-			\exists			1	1									
								4				-		-			
								1									
		<u> </u>	_						CION DA	TEA	DOCUMEN	Te			_		
	_	T)H	ERIN PA	IEN	DOCOMEN			T	TRMS	סתט	
			00	CM	BŒ				DATE		COUNTRY		OVS.	SECLES	15	K	
				I										<u> </u>	-	-	
	-	+	╀	+	\vdash	ŀ								 	 	╁	
••	+	+	\dagger	+	+	\dagger	+							-	1		
				1													
			0	ТН	EA	1	DO	CU	MENTS (H	nclud	ing Author, 1	itte, i	Date, F	ertinent	Pages	, E	
KΡ		-	1	1 T	98 b		ank pli	da fy	Semicond Switchin	ucto g Pa	Catalog, "I wer Supply De	Power esign	Semio	anductor 5-13	rs .		
KΡ		1	1	E	at	a S	hec	 ≱t,		Reg	ılating Puls				,		
KΡ		-	1	Ţ	at Cl	a S 525	she J\Az	et, UC2	Unitrode 2525A/UC3	Reg 525A/	ulating Puls UC1527A/UC25	e Wid 27A/U	ith Moo	ulators A, 2/86	r Rev.		
EXA	MINE				_						DATE CON		€D				
	٧r	14	ı۸	<u>e</u> 1	Pe	CLI	MΛ	n			9-23-	aı					

		(-)	-					(*), ⁶ ‡		Shee	rt4	ol	6 -	
FORM	PTQ-1	449	U	S () (1)	TRV ON			COMMERC WARK OFFICE	• 1 '	iny. 000@110 . LT-5 reis	sue		WL NO. 7/683,	549	
	5	FO F	MAT BAE	HON 8 TH	DE9 N Y	3.0 TU	SUR CAN	E ·			MPLCHT Carl T. N	elson	· 1			
	(L)	**	verid		HE I			■Y			FLNG DATE 4/10/91		212	OUP .		
	•						(U.	S. PATI	ENT D	OCUMENTS					_
EXAMPLE A DETINAL			800	10	KT NG.	10	R_		DATE		WAE	a	AS _	SECURE	FUED FUTTO	
		\dashv	+	\dashv	+	+	+	+		*					<u> </u>	
<u> </u>			1	1		1	1	1								
		Н	\dashv	\dashv	+	+	+	\dashv						74 A.		
							4	\Box						_		
		\vdash			H					-,::-						
					П									 		_
	-	+			H											
							F	OF	REIGN F	ATEN	T DOCUMEN	ΠS				
		T	OC.		B (1	W.	BER		DATE		COUNTRY		നമ	3,80,45		NOTAL
	-	+	Т	1	Т	Г	1	1	1	-				-	+ "	-
	+-	\dagger	t	t	\dagger	t	t	╁		1						
	+	\dagger	+	t	†	十	1									
		1		İ				I							1.	
								1	<u></u>							
			0	TH			D C	a	MENTS	(Includ	ling Author, T	Nde, D	ste, F	Pertinent	Pages	, Etc.
KP		-	-								lating Pulse 6 Rev. A	Width	Mon:	itor,		
KP											ent Mode FWM 5, 2/86 Rev.		olle	r, UC184	2/3/4,	/5,
KΡ			1	Q	bnt	or	l C	in		otorola	1063/MC35063/ Linear/Swit 166					
EX	MINE			_			_				DATE CON		D			
	Kris								nsidere		9-23-0	31				

609; Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant.

		F	?) ⁽								×	r	ے مر	<u> </u>		
FORM PTO	-144	9 1	D 2U BTAN	EN A	RTI	EXI TRAC	OF XEM	COMMERCE ARK OFFICE	A	IT-5 reis	sue	8 E	07/68	3,54	9	
	NFC STA	PLI	HOIT IB THE	DESC	200	JÆ			1	Carl T. N	elso	on				
	(U m	M-E	d sheet	a i	REC	107	Y)	•	F	LMG DATE 4/10/91		GA.	a	212		
	•					U	J.S	, PATEN	T DO	CUMENTS				••		
MANER		800	Men	i NU	468			DATE	-:	WE	a	ASS.	RECASS	PLANT OF		
				+	+	+	╀				+					
	+			1	1	İ	t				二二				_	
			\Box	Ţ	Ţ	\downarrow	Ţ				+					
	╬	+-	H	╅	+	+	+	- -								
	士			1	1	1	1									
-	-	+	\square	+	+	+	+		· · · · ·		-+-					
	士	1		1	1	士	1									
		1			1					*				<u></u>	_	
						FC	R	EIGN PA	TENT	DOCUMENT	3					
		Œ	XUE	NT N	U£8	e R	1	DATE		COUNTRY		aves	STORES	TRME		
		_	·			T	4				+		-	1"	-	
	-	+	╀┩	\dashv	Н	\dashv	4				+		+	+-	H	
		+	H	Н		Н	-				\dashv	_	-		T	
	-	+	-	H		H	\dashv				_		1	<u> </u>	T	
-	-	+				Н								1	1	
1_		ــلــ ه		<u> </u>	<u>ب</u>	~		VENTE O		ng Author, Tit	to De	rte. P	ertinent	Pages	L E	
	1	-								µA78S40 U						
KP			Red	an'	l a	to	~	Subsys	tem.	Motorola ndbook. 1	Lin	ear.	/Switc	hmod	e	
KP			Da	ta	S	he	et	sGS-	Thom	son High P, Septem	Curr	ent	Switc			
KP		H	Si	li	cc	on.	G	eneral	1986	Product	Cata	alog	, pp.	1-11	.1	
DXMII	NEA	1								DATE CONS	DERE	D				
V.	nst		Do	1	/~				9-23-91							

	(Ê	~100C_	-6 ot	-6-				
FORM PTO	D-1449					OF COMMERCE XEMARK OFFICE	LT-5 rei	3	GAL NO. 07/683	3,549	9			
	•	THEM	5 7 A	V T.	CMI	•	Carl T.	Nelson						
	(in m	ari d	Neets 1	1 4		ni	FLING CATE 4/10/91		240LP 12					
					U	S. PATENT	T DOCUMENTS							
MADER NITAL		OCUM	er ne	***	3 1	DATE	ME	axs	3.8C.45	FATTICE				
		+	H	+							_			
		Ţ		1										
	++	+	H	+	+						-			
		I		_	上									
	++	+	Н	\dashv	╁						_			
		丰			丰									
	+	+	H	\dashv	-	-	. <u> </u>			├─				
t	<u> </u>			اب.	FO	REIGN PATI	ENT DOCUMEN	TS	<u> </u>	<u> </u>				
		DOCUM	en n	LLE	123	DUTE	COUNTRY	CLASS	SUBCLASS	THE	100			
	+	_	П			-				185	K			
- -	- -	十	H		H	 				-	-			
		+	H		H					-	+			
	11	+	Ħ		T					1	†			
	(ЭТН		C)	MENTS (Inc	luding Author, Ti	tie, Date, I	Pertinent	Pages	, Et			
KP		Ş	Sien	en	s IC	's For Indus	strial Electron	ics Data E	∞k 1983,	/84,	•			
			XD	26	5-32	3								
	H					٠								
	H													
EXAMINE	<u>: </u>	-					DATE CONS	DERED	-					
							1							

this form with next communication to applicant.